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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,706	11/24/2003	Manabu Sawasaki	1324.66570	5369

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EXAMINER	
DI GRAZIO, JEANNE A	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/720,706	SAWASAKI ET AL.	
	Examiner	Art Unit	
	Jeanne A. Di Grazio	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19 and 23-32* is/are pending in the application.

4a) Of the above claim(s) *19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 August 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/166,119.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *August 1, 2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims

1. Claims 23-32 are pending per Amendment of July 29, 2005. Claims 25 and 30 have been amended per said Amendment. Claims 1-18, 20-22 and 33-40 have been cancelled per Applicant's Preliminary Amendment of November 24, 2003. Claim 19 has previously been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election (of Species F, Figure 24, claims 23-32 readable thereon) was made **without** traverse in the reply filed on February 7, 2005.

Priority

2. Priority to Japanese Patent Applications 2001-199313 (June 29, 2001) and 2002-119774 (April 22, 2002) is claimed.

3. This is a divisional of Patent Application No. 10/166,119.

Drawings

4. The drawings were received on August 1, 2005. These drawings are Figures 35-41.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23-25 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,818,550 (to Kadota et al.) in view of United States Patent 5,995,172 (to Ikeda et al.).

5. As to claim 23, Kadota illustrates in Figure 1, a thin film transistor array substrate (O – TFT substrate) with color filters (9R, 9G and 9B) and pixel electrodes (1). The color filter is a resin color filter (Column 5, Lines 52-60).

Kadota also shows a common electrode substrate (counter electrode 11 and opposing substrate 12) in which the common electrode substrate (12) faces in a face-to-face relationship with the TFT substrate as can be seen in Figure 1. A layer of liquid crystal (13) is sealed between the thin film transistor substrate (O – TFT substrate) and the common electrode substrate (12).

Kadota's Figure 1 also appears to show that the common electrode substrate is thinner than the TFT array substrate. However, the thickness of the substrates and their respective materials cannot be immediately determined.

Ikeda teaches and discloses a tablet integrated liquid crystal display apparatus with less parallax in which a counter electrode substrate is made of plastic and is about 0.6 mm or thinner while the driving TFT array substrate is glass and ranges from about 0.6 mm to 1.1 mm in thickness (Abstract, entire patent).

Clearly, the substrates are (1) of different thicknesses and (2) of different materials (plastic versus glass).

Ikeda teaches that with such a configuration, parallax between the tip of an input pen and a display image is eliminated without the occurrence of bending of a substrate and damage to the switching elements.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Kadota in view of Ikeda to prevent bending of substrates and subsequent damage to switching elements. Especially in the context of small

personal information devices for which excessive impact and trauma to the devices are inevitable, it is highly desirable to ensure that the substrates cannot easily deform to damage the underlying delicate switching elements.

As to claim 24, the common electrode substrate is thinner than the switching substrate as can be seen in Ikeda as noted.

As to claim 25, because the common electrode substrate of Ikeda is thinner than the switching substrate it may be presumed that the common electrode substrate is lighter in weight than the switching substrate. The substrates are also made of different materials as noted and thus must differ in weight.

As to claim 28, the common electrode substrate of Ikeda is made of plastic as noted.

As to claim 29, Ikeda (Figure 14) shows supports (25) that appear columnar and for holding the substrates at a given distance from each other.

As to claim 30, the switching substrates are located adjacent to the display side than the common electrode substrates.

As to claims 31 and 32, Kadota teaches that gate electrodes may be made of MoSi, Wsi, Al, Ta, Mo/Ta, Mo, W, Ti, Cr and like materials (Column 5, Lines 10-13). For manufacturing convenience and cost efficiency, it may be presumed that the bus lines and source and drain electrodes are likewise made of the same material(s) as the gate electrodes.

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,818,550 (to Kadota et al.) in view of United States Patent 5,995,172 (to Ikeda et al.) and further in view of United States Patent 5,764,318 (to Kurematsu et al.).

6. As to claims 26 and 27, Kadota does not appear to explicitly specify that the common electrode substrate is made of alkaline glass.

Kurematsu teaches and discloses a liquid crystal display panel and projector and teaches that alkaline glass is less expensive than non-alkaline glass (Columns 2, Lines 64-67 and Column 3, Lines 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Kadota in view of Kurematsu for cost efficiency.

Response to Arguments

7. Applicant's arguments filed August 1, 2005 have been fully considered but they are not persuasive.

Applicant's only arguments are the following:

"Parallax is not a problem in the present invention, so one of ordinary skill would not look to a tablet display to produce the lightweight and reliable non-tablet display defined in claim 23." (Remarks at page 6).

In response to applicant's argument that "Parallax is not a problem in the present invention, so one of ordinary skill would not look to a tablet display to produce the lightweight and reliable non-tablet display defined in claim 23," the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicant argues that Applicant's invention is lightweight and reliable (Remarks at page 6). Thus, one would indeed look to a tablet display which itself is lightweight.

Applicant then argues, "Kadota et al. does not address the problems solved by applicants."

In response to applicant's argument that "Kadota et al. does not address the problems solved by applicants," the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicant finally argues that "the Examiner is using hindsight reasoning to reconstruct the present inventions from various features of unrelated references, without showing a suggestion or motivation to modify and combine these references to obtain the present invention."

Please note that Applicant admits that the references are not unrelated. The Examiner quotes Applicant: "[w]hile these products have some features in common..." (Remarks at page 6).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Given that Applicant's invention is lightweight and reliable, one would look to a display that is lightweight to arrive at the claimed invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2871

JDG

ANDREW SCHECHTER
PRIMARY EXAMINER